

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Original): A driving method of a self-luminous display apparatus having a plurality of self-luminous elements comprising each of pixels placed like a matrix in a pixel row direction and a pixel line direction and driving a display portion by passing a current between an anode and a cathode of each of the self-luminous elements and thereby emitting light from each of the pixels, the driving method comprising:

a first process of acquiring a first amount of current to be passed between the anode and the cathode correspondingly to video data inputted from outside, and acquiring a predetermined single value as the first amount of current irrespective of a status of video data value distribution around the video data;

a second process of acquiring a second amount of current to be passed between the anode and the cathode correspondingly to the video data inputted from outside, where, regarding the second amount of current, a value, which has the first amount of current suppressed at a predetermined ratio according to the status of video data value distribution around the video data, is prepared, and of performing a processing in which the ratio of suppression is variable according to the status of video data value distribution,

wherein the amount of current passing through each pixel line is controlled based on a result of the first or second processing instrument so as to emit light from the display portion.

Claim 2 (Original): The driving method of a self-luminous display apparatus according to claim 1, wherein the first amount of current applied between the anode and the cathode of each of the corresponding self-luminous elements is determined by the first process when a gradation value of the video data inputted from outside is on a lower gradation side of performing a black display than a first predetermined gradation value.

Claim 3 (Original): The driving method of a self-luminous display apparatus according to claim 1, wherein the second amount of current x applied between the anode and the cathode of each of the corresponding self-luminous elements is determined by the second process when a gradation value of the video data inputted from outside is on a higher gradation side of performing a white display than a first predetermined gradation value, and if the first amount of current in the case of performing the first process to the gradation value is y , the following relation holds between the first amount of current y and the second amount of current x :

$$0.20y \leq x \leq 0.60y.$$

Claim 4 (Currently Amended): The driving method of a self-luminous display apparatus according to ~~any one of claims 1 to 3~~ claim 1, wherein the applied amount of current is determined by acquiring a current value i_1 which is a maximum value of the image data inputted from outside in a first period, acquiring a proper current value i_2 by calculation from the image data inputted in a second period, and sequentially calculating the amount of current applied to each of the pixels displayed based on the predetermined image data inputted in the second period based on a ratio i_2/i_1 .

Claim 5 (Currently Amended): The driving method of a self-luminous display apparatus according to ~~any one of claims 1 to 3~~ claim 1, wherein the applied amount of current is determined by acquiring a third current value i_3 which is a maximum value of the inputted image data, actually applying a current between the anode and the cathode of each of the self-luminous display elements, acquiring an optimum value as a second current value i_4 and multiplying the inputted image data by a ratio i_4/i_3 and thereby sequentially calculating

amount of current applied to each of the pixels displayed based on the predetermined image data.

Claim 6 (Currently Amended): The driving method of a self-luminous display apparatus according to ~~any one of claims 1 to 3~~ claim 1, wherein the gradation value of the video data inputted from outside is on a higher gradation side of performing a white display than the first predetermined gradation value, and the amount of current applied between the anode and the cathode of each of the self-luminous elements is controlled by a black insertion rate.

Claim 7 (Original): The driving method of a self-luminous display apparatus according to claim 6, wherein the black insertion is performed from a first line to a terminal line in turn, and a black area is collectively inserted in one frame.

Claim 8 (Original): The driving method of a self-luminous display apparatus according to claim 7, wherein the black insertion is performed from the first line to the terminal line, and the black area is inserted into a plurality of areas divided in the one frame.

Claim 9 (Original): The driving method of a self-luminous display apparatus according to claim 6, wherein the black insertion is performed into a plurality of areas divided in the one frame while interchanging the turn instead of performing it from the first line to the terminal line in turn.

Claim 10 (Currently Amended): The driving method of a self-luminous display apparatus according to ~~any one of claims 1 to 3~~ claim 1, wherein the gradation value of the

video data inputted from outside is on a higher gradation side of performing a white display than the first predetermined gradation value, and the amount of current applied between the anode and the cathode of each of the self-luminous elements is controlled by adjusting the amount of current passing through a group of source lines.

Claim 11 (Original): The driving method of a self-luminous display apparatus according to claim 10, wherein the adjustment of the amount of current passing through the group of source lines is performed by increasing and decreasing a reference current value.

Claim 12 (Original): The driving method of a self-luminous display apparatus according to claim 10, wherein the adjustment of the amount of current passing through the group of source lines is performed by increasing and decreasing the number of gradations.

Claim 13 (Currently Amended): The driving method of a self-luminous display apparatus according to ~~any one of claims 1 to 3~~ claim 1, wherein a difference between a first current passing between the anode and the cathode of each of the self-luminous elements in a first frame period and a second current passing in a second frame period following the first frame period is acquired, an n difference current value of which difference value is $1/n$ (n is a number of 1 or more) is calculated, and a selection value of a pixel line is determined from the n difference current value.

Claim 14 (Original): The driving method of a self-luminous display apparatus according to claim 13, wherein the value n is $4 \leq n \leq 256$.

Claim 15 (Currently Amended): The driving method of a self-luminous display apparatus according to ~~any one of claims 1 to 3~~ claim 1, wherein a γ constant is corrected to be optimum by the amount of current passing between the anode and the cathode of each of the self-luminous elements.

Claim 16 (Original): The driving method of a self-luminous display apparatus according to claim 15, wherein the γ constant is a set of points on a curve configured by sequentially combining intermediate values of a plurality of γ curves.

Claim 17 (Original): The driving method of a self-luminous display apparatus according to claim 15, wherein increase and decrease in the γ constant is adjusted based on whether a light emission period of the self-luminous display element is long or short.

Claim 18 (Currently Amended): The driving method of a self-luminous display apparatus according to ~~any one of claims 1 to 3~~ claim 1, wherein on and off of the second process is controlled by placing switching instrument for the second processing instrument so as to determine the amount of current passing between the anode and the cathode of each of the self-luminous element by combining the first process and the second process when turned on and determine it only by the first process when turned off.

Claim 19 (New): A driving circuit of a self-luminous display apparatus having multiple self-luminous elements constituting each pixel placed like a matrix in a pixel row direction and a pixel line direction and driving a display portion by passing a current between an anode and a cathode of each self-luminous element and thereby emitting light from the pixels, the driving circuit comprising:

a first light emitting instrument which has light emitted by each of the self-luminous elements at a first luminance preset correspondingly to image data inputted from outside;

a second light emitting instrument which has light emitted by each of the self-luminous elements at a second luminance adjusted to suppress the first luminance preset correspondingly to the image data inputted from outside in conformance with light emitting luminance distribution of the pixels in surroundings.

Claim 20 (New): A driving circuit of a self-luminous display apparatus having multiple self-luminous elements constituting each pixel placed like a matrix in a pixel row direction and a pixel line direction and driving a display portion by passing a current between an anode and a cathode of each self-luminous element and thereby emitting light from the pixels, the driving circuit comprising:

a first processing instrument which performs processing of setting a first amount of current which should pass between the anode and the cathode correspondingly to image data inputted from outside and setting the first amount of current at a predetermined single value independently of an image data value distribution status in the vicinity of the image data; and

a second processing instrument which performs processing of setting a second amount of current which should pass between the anode and the cathode correspondingly to the image data inputted from outside and having one value of the second amount of current prepared which is a value of the first amount of current suppressed at a predetermined ratio according to the image data value distribution status in the vicinity of the image data, where the ratio of suppressing is variable according to the image data value distribution status; and

a control instrument which controls the amount of current passing through each of the pixel lines based on results of the first and second processing instrument.

Claim 21 (New): The driving circuit of the self-luminous display apparatus according to claim 20, in which the second processing circuit performs processing of deciding the second amount of current for each of the pixel lines by arithmetic processing based on the image data inputted from outside.

Claim 22 (New): The driving circuit of the self-luminous display apparatus according to claim 21, in which the arithmetic processing is a process of obtaining a current value i_1 which is a maximum value of the image data inputted from outside in a first period, acquiring a proper current value i_2 by calculation from the image data inputted from outside in a second period, and sequentially calculating an amount of current applied to each of the pixels displayed based on the predetermined image data inputted from outside in the second period based on a ratio i_2/i_1 .

Claim 23 (New): The driving circuit of the self-luminous display apparatus according to claim 20, in which the second processing circuit includes an instrument that measures the image data inputted from outside and performs the arithmetic processing of deciding the second amount of current for each of the pixel lines based on the measurement result.

Claim 24 (New): The driving circuit of the self-luminous display apparatus according to claim 23, in which the arithmetic processing is a process of obtaining a third current value i_3 which is a maximum value of the image data inputted from outside, actually applying a current between the anode and the cathode of each of the self-luminous display elements, and acquiring an optimum value as a second current value i_4 and multiplying the inputted image data by a ratio i_4/i_3 so as to sequentially calculate the amount of current applied to each of the pixels displayed based on the predetermined image data.

Claim 25 (New): The driving circuit of the self-luminous display apparatus according to claim 19, further comprising a switching instrument for the second processing instrument which has operations effected only by the first processing instrument.

Claim 26 (New): The driving circuit of the self-luminous display apparatus according to claim 20, further comprising a switching instrument for the second processing instrument which has operations effected only by the first processing instrument.

Claim 27 (New): A controller of a self-luminous display apparatus having the driving circuit according to claim 19.

Claim 28 (New): A controller of a self-luminous display apparatus having the driving circuit according to claim 20.

Claim 29 (New): A self-luminous display apparatus comprising the driving circuit according to claim 19, in which the self-luminous elements are formed or placed in a matrix in a pixel row direction and a pixel line direction.

Claim 30 (New): A self-luminous display apparatus comprising the driving circuit according to claim 20, in which the self-luminous elements are formed or placed in a matrix in a pixel row direction and a pixel line direction.

Claim 31 (New): A driving method of a self-luminous display apparatus having a plurality of self-luminous elements comprising each of pixels placed in a matrix in a pixel

row direction and a pixel line direction and driving a display portion by passing a current between an anode and a cathode of each of the self-luminous elements and thereby emitting light from each of the pixels, wherein:

the light is emitted from the display portion by controlling an amount of current passing each of pixel lines based on results of (1) a first process of acquiring a first amount of current to be passed between the anode and the cathode correspondingly to video data inputted from outside, and acquiring a predetermined single value as the first amount of current irrespective of a status of video data value distribution around the video data, or (2) a second process of acquiring a second amount of current to be passed between the anode and the cathode correspondingly to the video data inputted from outside; and preparing as the second amount of current a value having the first amount of current suppressed at a predetermined ratio according to the status of video data value distribution around the video data while the ratio of suppression being variable according to the status of video data value distribution, and

in the case where the amount of current equivalent to displaying white is represented as 100, and if a gradation of a low-current region having the predetermined amount of current represented as 30 or less is given a positive number which is $N1 > 1$, $N2 > 0$ and $N1 \geq N2$ as a coefficient, W as the predetermined amount of current, I_{org} as a current value at the time, and T_{org} as a light emitting period, the amount of current satisfying the current value of $I_{org} \times N1$ and the light emitting period of $T_{org} \times 1/N2$ is applied instead of the predetermined amount of current.